Spaces of Social Inclusion: What are the Ideal Conditions That Encourage the Long Term Resilience of Community Gardens in London?

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Abstract

Community gardens are community-led initiatives, where food production can be used as a tool to foster socially inclusive spaces in a neighbourhood. In London, there is a growing interest towards the positive influences they contribute to catchment areas. However, they suffer from a two-fold problem as they are often built on derelict or vacant pockets of land and are generally developed without the necessary planning and well-conceived design. In addition, their targeted contributions to their surroundings are not yet fully valued by planners hence, they tend to be regarded as a temporary utilisation of space, which limits the extent of support and funding they should ideally attract. This projects sheds light on the impacts that community gardens have on their respective surroundings in terms of physical fabric and potential users, particularly in achieving social inclusion goals. This will be coupled with an analysis of existing community gardens in London, to evaluate the factors that lead to their success. The findings are used to develop a two-layered tool kit, which explores the ideal management and design principles stakeholders can apply during the development of community gardens to further support their success, long term resilience and sustainability.

Keywords: Community Gardens; Urban Design; Planning; Users; Resilience; Sustainability

1. Introduction

This paper explores the role of community gardens as a land use, specific to the context of London, United Kingdom. Community gardens are a form of urban green space that lie at the nexus of food production and community development. They are usually developed on vacant or derelict land sandwiched amongst other urban uses, which interested participants nurture and maintain. They represent a form of bottom up planning as they are often heavily designed, built and managed with the input of its users, therefore, their formation is reflective of a community's specific needs and the local context (Ghose and Pettygrove, 2014). Studies have demonstrated the benefits of community gardens, by allowing citizens to practice their rights to the city through transforming derelict spaces in a neighbourhood to ones with representations of identity and empowerment (Hess and Winner,

2009). The Localism Act (2011) states unused or vacant public land should be prioritised for food growing either temporarily or permanently under the Community Right to Reclaim Land. Although such gardens present many opportunities to those actively participating and the neighbouring urban fabric, they are usually formed outside formal planning systems, therefore, the limited strategic planning and design involved, alongside lack of long term maintenance strategies results in these spaces not nursing their intended impact or losing their effect progressively. Despite their growing trend of interest, their benefits are not made fully aware by planners. Public participation in such nature-based activities was highlighted in the UK National Ecosystem Assessment Report (UKNEA, 2011) as significant contributors to both human and environmental wellbeing, stating that there is currently "knowledge gap" regarding their advantages. Considering their long-term growth is highly dependent on the degrees of engagement of the community members and volunteers over a prolonged period of time, it is essential that these spaces interact and integrate well with its users and surrounding urban tissue.

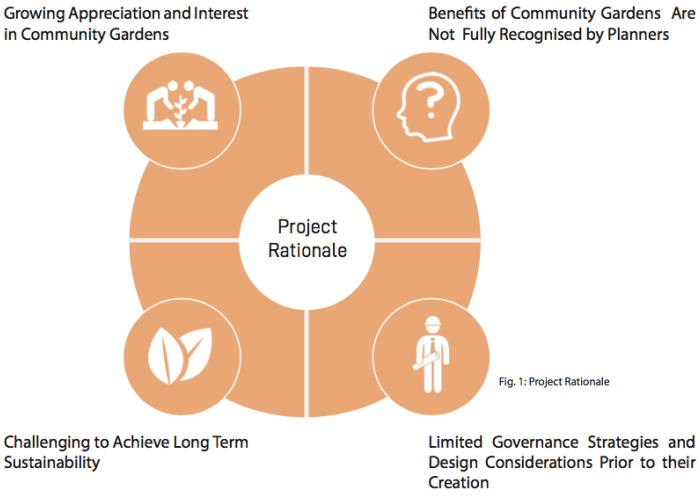


Figure 1: Project Rationale

2. Literature Review

2.1 Contributions and Impacts – Physical Transformation of Spaces

They have become a more favourable option in comparison to allotment gardening, which typically requires additional land and is a more regulated, controlled and individualised. Thus, community gardening initiatives have gained attractiveness as they respond to multi-faceted urban issues linked to new sustainability goals, providing collective benefits (Mougeot, 2007, FAO, 2007). This has led to a surge of community gardens in England during the early 21st century, with the membership of

Federation of City Farms and Community Gardens (FCFCG) increasing by 72% between 2006 and 2011. Their value and function has the ability to deliver an abundance of advantages. They address issues regarding urban decay, through improving the physical fabric of neighbourhoods and occupying everyday spaces that have been disregarded by the local state or landlords (Voicu and Been, 2008). In London, 66% of registered community gardens have been built on previously unused, derelict or inaccessible land (Capital Growth, 2016). Such sites usually experience waste, crime and anti-social behaviour which are representations of urban disadvantage (Milbourne, 2012)

Through ongoing community co-production, these spaces are transformed into gardens, accommodating vegetation, outdoor furniture and children's play facilities (Glover and Parry, 2005). Over time, their physical transformation alters their meaning, producing transformed spaces with connotations of identity and shared ownership. As a result, they are regarded as spaces which allow citizens to challenge dominant power relations and claim rights to the city (Schemlzkopf, 2002). Increased biodiversity in these spaces translates into wider physical and mental health benefits. This is becoming increasingly recognised by health authorities as horticultural therapy is popularising. Additionally, London's food system is considered unsustainable where 29% of vegetables and 89% of fruits are imported, meanwhile its ecological footprint is 125 times its surface area (MAFF, 1998). Although it is unrealistic to state that community gardens can provide food produce for the whole city, it can increase food access to a certain extent to catchment areas. Thus, community gardens represent an increased awareness of the shortcomings of the globalised food economy (Garnett, 2000). In addition, the shift from private gardens to shared urban spaces represent alternative visions of food security that is increasingly relying on the "sharing economy (Botsman and Rogers, 2010)."

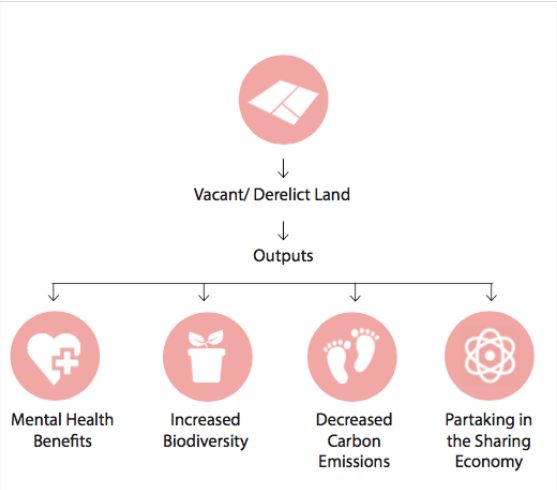


Figure 2: Physical Transformations

2.2 Contributions and Impacts – Developing Social Capital

Such physical transformations have a domino effect in enhancing the social capital of neighbourhoods. Reclaiming under-used spaces allow residents to meet their neighbours, increasing their sense of security and belonging with their surroundings (Saldivar-Tanaka & Krasny, 2004). Capital Growth (2016) estimates that 38% of people in London feel safer in their neighbourhood as a result of a community gardening project. The social interactions that are facilitated foster norms of reciprocity and trust, which are forms of social capital (Putnam, 2000). One of the criticisms with the production of social capital is that it is not equally available to all, similar to other forms of capital (Edwards and Foley, 1997). Therefore, doubts are raised whether community garden benefits are accessible for everyone in a community, and if they extend beyond the garden space. Considering this form of food production can save gardeners money, organisations are targeting lower income and minority groups to counteract marginalization by improving their material conditions and alleviating the socioenvironmental stresses at a neighbourhood level (Ferris et al, 2001). However, this has proven to be challenging, with middle income groups predominantly involved with the informal food economy.

2.3Contributions and Impacts – Influencing Social Change

Through the physical transformation of spaces and production of social capital, community gardens represent a land use aimed at community resistance to powerful global development forces. Promotion of such collaborative governance models encouraging citizen participation and volunteerism has been a key neoliberal strategy (Jessop, 2002). Participation in gardens facilitates social exchange and increased critical consciousness about neighbourhood issues, prompting users to practice democratic values. Kuo et al. (1998, pg. 31) justifies that “individuals living adjacent to greener common spaces had more social activities and more visitors, knew more of their neighbours, reported their neighbours were more concerned with supporting one another, and had stronger feelings of belonging.”

2.4 Limitations and Challenges

- **Design**

Urban agriculture related activities suffers from an image problem, as it is traditionally associated with rural uses. Therefore, the unique productivity of such collectively managed green spaces is usually overlooked by local planning authorities in preference of more conventional urban green spaces, for example parks and nature reserves (Francis, 1987). Considering that community gardens

are not regarded as a public resource like metropolitan parks or other physical urban structures, their status often remains insecure or are placed in isolation from other uses (Sanstorm, 2002). This could result in fragmented green spaces with less value, functional use, and influence on their surroundings.

- **Governance**

Governance is critical to the development of gardens, influencing how the land is managed. Public green space governance is a complex subject due to the wide range of stakeholders with overlapping responsibilities and goals. Approaches to management of these green assets are varied, especially in the case of informally managed spaces such as community gardens and allotments, yet little is understood about the characteristics of informal approaches to land uses which contribute to the production of ecosystem services (Dennis and James, 2016). Considering many urban gardening sites are not on public land, and/or because the governments lacks required resources (such as professional knowledge, time, capital, etc.) development of these areas is highly dependent on the resources and engagement of non-state actors. Therefore, instead of state-led planning of urban garden sites, collaborative planning practices involving multiple stakeholders during the different stages of the project should be applied (Luyet et al, 2012). Many agree that both public and private environmental organisations should rely on unpaid volunteers to protect the environment. This represents two trends in neo liberalising cities: lack of funding for public infrastructure and the increasing responsibility of the community (Fors, Molin and Bosch, 2015). However, green spaces especially community gardens, are especially vulnerable to neoliberal development policies, such as the creation of residential uses or commercial centres, therefore goals of bottom up governance can conflict with priorities set by planners (Tornaghi, 2014). Schemizkopf (1995) claims that community gardens are creating new hybrid or “third spaces” that converge public and private worlds.

- **Funding**

Cutting resources for green infrastructure management is common as their benefits are not as tangible (Hanley and Barbier, 2013). Politicians typically allocate funds to more critical projects where politically rewarding and instant results are expected, making short-term measures more favoured than longer-term investments towards green-space management. Considering both formal and informal green infrastructure do not generate direct financial revenues such as taxes, planners exert

huge amounts of energy in identifying grant sources when submitting proposals, which focuses on obtaining initial funds while neglecting the importance of maintenance funds. Therefore, site based income generation is recommended, which could supplement ongoing revenue (Mackrodt and Helbrecht, 2013). However, this requires a more professional approach as it involves additional resources.

- **Design**

There is a mismatch between the desire for methodical planning and the reactionary impulse to infill unused land with gardens that has alienated planning from its development and maintenance, due to its heavy influence by non-state actors. However, gardens lose their unique strength if they are isolated plots in the urban tissue, therefore, it is critical to integrate them with their surrounding environment. For Holland (2004), the integration of urban gardens into local communities depends on the width of both their membership and their accessibility. The lack of strategic design prior to their creation is a contributor to the longer term challenges they face. Moore (2014) shares that "considered design has all too often been conspicuous by its absence" where "a more strategic design can take things a step further providing an opportunity to create maximum user flexibility, reduce maintenance and ensure sustainability." The 2017 *Just Space Environmental Strategy* states boroughs should identify land for commercial food production and gardening, however, there is a gap in identifying the most desirable land for such functions. This project aims to tackle this research gap, through developing a process that allows better consideration of which sites are best situated in context to its surroundings. Therefore, a more macro approach will be taken, rather than designing an individual garden, as their micro design priorities are heavily influenced by the local context.

2.5 Third Places

Third places as defined by Oldenburg (1989) as informal gathering spaces outside both home and work that foster community building, emotional expressiveness and social interactions. Hence, community gardens act as "third places" as they welcome communities and creating possibilities for interactions (Cheatham, 2001). Therefore, these places are important for civil society and engagement and seen to promote social capital (Matthews and Dolley, 2018).

There are some specific characteristics that improve the quality of third places in supporting human interactions, which could be relevant to community gardens. These will be tested against the community gardens around London to see whether such principles apply in the context of gardens.

2.5.1 Summary of Literature Review

Through analysing the key literature, the below principles were extracted as having influence on the outcomes of a community garden proposal. The development and governance of the garden also similarly influences levels of interest, therefore, community management tools should be equally considered.

Table 1.

Factors Impacting the Success of Community Gardens
Accessibility to and from other urban uses, particularly economic and social centres.
Demographic character of the catchment area.
Close to low socio economic or high density developments.
Minimal private gardening within the catchment area.
Secure land tenure
Presence of public amenities and aesthetic features.
Under utilised land and its surrounding location and characteristics.

3. Case Studies

3.1 Case Study Methodology

The chosen case studies will be explored through identifying basic information of each community garden, outcomes produced coupled with an analysis of the land uses located a 5 minute walk from the site. Together, this allows the evaluation of the successes and shortcomings of each project, whereby successful outputs will be transferred to the application tool kit.

3.2 Analysis of Community Gardens in London

Table 2

Dalston Eastern Curve Garden, London

Project Description	**Project Outcomes**
Location: Dalston, Borough of Hackney	**Impacts on Local Community:** Creating a safe public space out of a previously derelict one; A space for younger people to participate in creative workshops and the elderly to connect with nature, improving their mental health; A stronger sense of community in the neighbourhood.
Size: 1282 m^2 Height: 90m Width:14 m	
History of the Site: It was an railway line till 1944, then became an unofficial landfill site.	
Motivations: Dalston, the most densely populated ward in Hackney, suffers from a deficiency in public spaces and limited access to private gardens.	**Provided Amenities:** Cafe, informal play space for kids, toilets, seating space, open air live music space.
Funding: £200,000 was initially provided by the council, whereas, the cafe funds ongoing revenue.	**Visual Appearance:** Fenced, high wall (exterior), rich biodiversity (interior).
Supervision: Public with secured full-time paid supervisors based on site.	

Figure 3: Café Run as a Social Enterprise

Figure 4: Personalised Entrance of the Garden from Dalston Lane

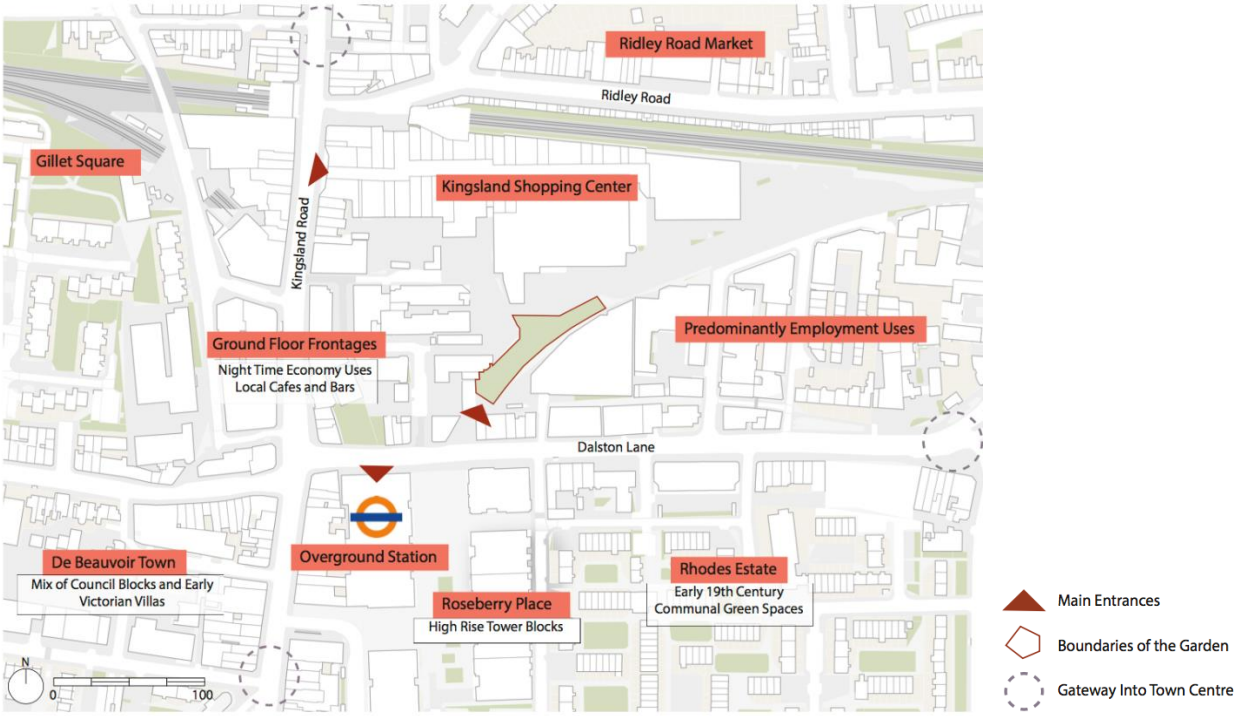


Figure 5. Analysis of Surrounding Uses

Table 3

Key Lessons of Case Study
Having one entrance only gives the space a sense of enclosure, heightening feelings of safety and security amongst the users, especially children.
A successful project that provided an area with a historically lacking asset.
Its management as a social enterprise has brought ongoing income for maintenance purposes.
Its collaboration with local schools has taught children about the importance of nature and biodiversity in the city.

Table 4. ***Thornhill Bridge Community Garden, London***

Project Description	**Project Outcomes**
Location: Caledonian Road, Borough of Camden (completion in 2009)	**Impacts on Local Community:** It became part of commuters' journey to work, however, continued to experience anti-social behaviour (Camden, 2012). Due to its unsuccessfulness, the land was recently returned back to the council.
Size: 455 m2 Height: 25m Width: 17m	
History of the Site: The public space by the canals was experiencing anti-social behaviour, especially at night.	
Motivations: Lisa Tang, a long-term resident in Kings Cross, wanted to eliminate public spaces that encouraged unsafe activity, therefore, initiated a charity to develop a community garden	**Provided Amenities:** Personalised art work, benches and a kids play area.
Funding: Edible Islington offered initial capital, followed by Big Lottery awarding £100,000 for landscaping. However, no ongoing funds were received afterwards.	**Visual Appearance:** Located away from the main street, sandwiched along the canal making it hard to spot (exterior) // Under maintained shrubs and weeds (interior).
Supervision: Public with secured full-time paid supervisors based on site.	

Figure 6: Entrance of the Garden

Figure 7: Overgrown Plants Around the Play Area

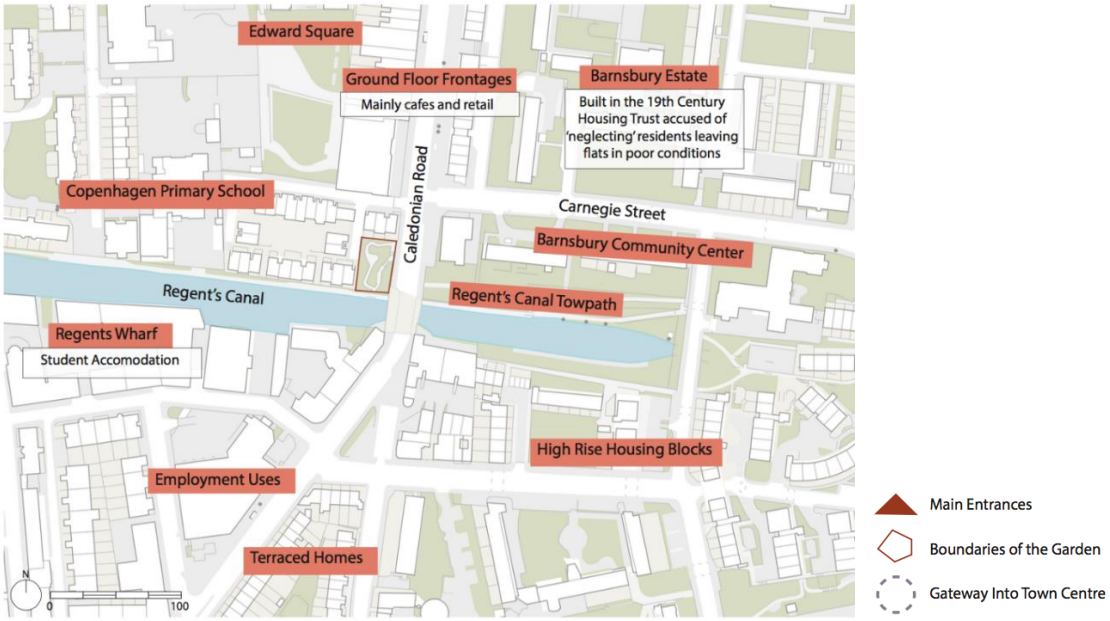


Figure 8

Analysis of Surrounding Uses

Table 5

Key Lessons of Case Study
The unanimated entrance of the garden caused it to blend in with its surroundings, therefore, hard to spot by the public eye.
The lack of ongoing money and volunteers were some of the reasons that led to the failure of the project, and the land eventually being handed back to Islington Council.
The owner found it challenging to engage a wide range of demographics, despite having involved a large number of stakeholders and instead, found that the garden mainly attracted middle class white residents.

Marchmont Street Community Garden

Table 6

Project Description	**Project Outcomes**
Location: Russell Square, Borough of Camden (completed in 2011)	**Impacts on Local Community:** It is a path pedestrians take on their way to work because it acts as a short cut connecting two parallel streets; An informal spot for students, workers and residents nearby to sit and have their lunch; An event space for the Marchmont Community Association.
Size: 285 m2 // Height: 34m Width: 8m	
History of the Site: Unused space sandwiched between two buildings.	
Motivations: The space was identified by Marchmont Association as one of the three 'eyesores' along the street, creating an awkward gap.	**Provided Amenities:** Benches
Funding: Initial: £100,000 provided by Big Lottery funds along with £40,000 provided by S106. Ongoing: unknown.	**Visual Appearance:** Transparent fencing (exterior) // Lined biodiversity (interior).
Supervision: Public// Camden Parks' contractor is in charge of supervising the gate on a daily basis.	

Figure 9: Landscaping Inside the Garden

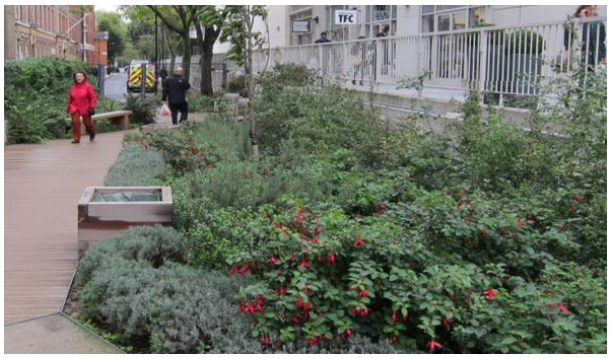


Figure 10: Thorough Route Across the Garden

Analysis of Surrounding Uses

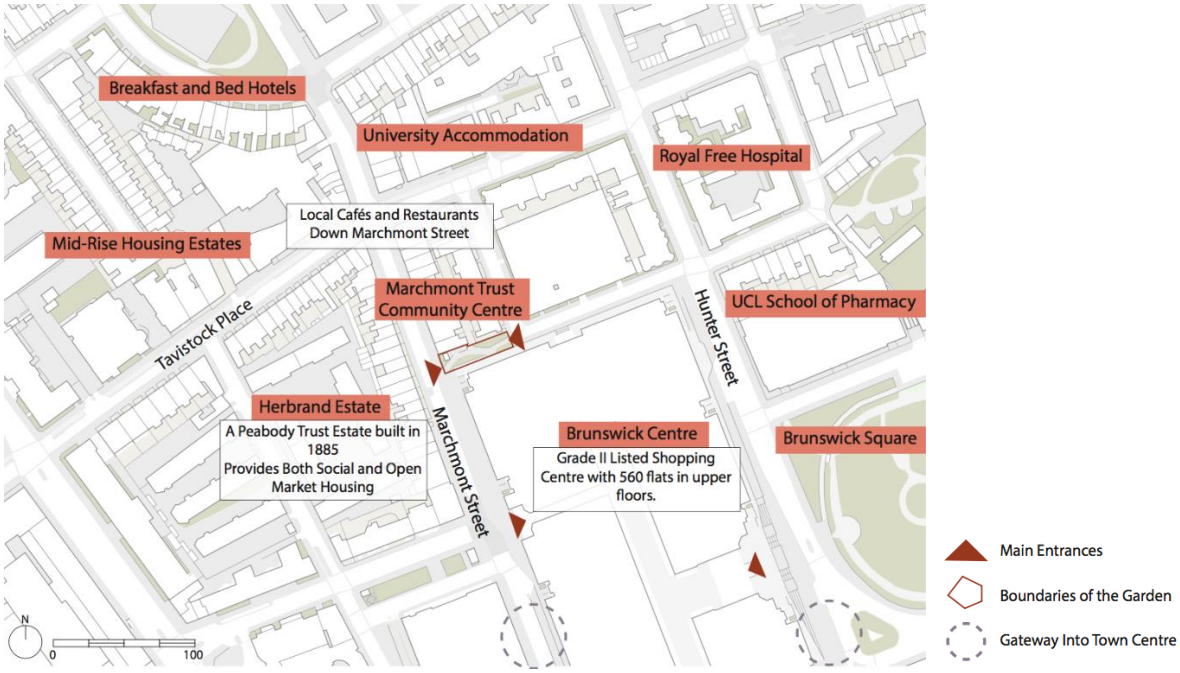


Figure 11

Table 7

Key Lessons of Case Study
The catchment area has many student accommodations and university buildings, rather than long-term residents, influencing the space to be used as a gathering spot during lunch time rather than a gardening space.
Due to its entrances connecting two parallel roads, it is used as a thoroughfare rather than a destination to many users.
Successful in acting as a 'third place' in Russell Square, however, its benefits as a community garden is less visible.

3.3 Case Study Analysis Summary

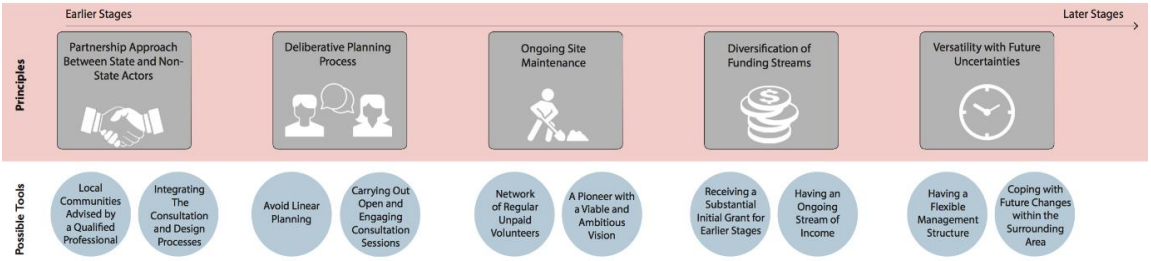
Following the case study analysis and site visits, some discrepancies have been identified between the practices and literature. For example, neither case study has examples of selling grown plants to generate an income. Instead, gardeners would use the produce at their own leisure.

The literature discusses community gardens as a tool to empower residents from lower socio-economic backgrounds (Moseley, Marzano, Watts, Chetcuti, 2013) however, majority of the users identified were of middle class backgrounds, who were environmentally conscious. Although community gardens are effective in acting as a space for social gathering for users from a similar catchment area, they raise doubts about their degrees of impact in achieving social inclusion for residents of different genders, ethnicities and backgrounds, and the extent to which the results of social capital are diffused.

Oldenburg's (1989) analysis of 'third places' reflects many of the characteristics of a community gardens, some gaps were identified. One of Oldenburg's principles include having a transparent façade to animate the space and provide vibrancy to the street frontage, however, it seemed that the more successful gardens had an enclosed form, providing a sense of security and privacy from main streets. Moreover, although permeability from street frontages to the community garden is encouraged, permeability on a micro scale was less successful, as it encourages pass byers or commuters to use the space as a thoroughfare. Therefore, having limited entrances seemed to be more effective in retaining the character of the garden.

3.4 Tool Kit

Management Approaches



Design Approaches

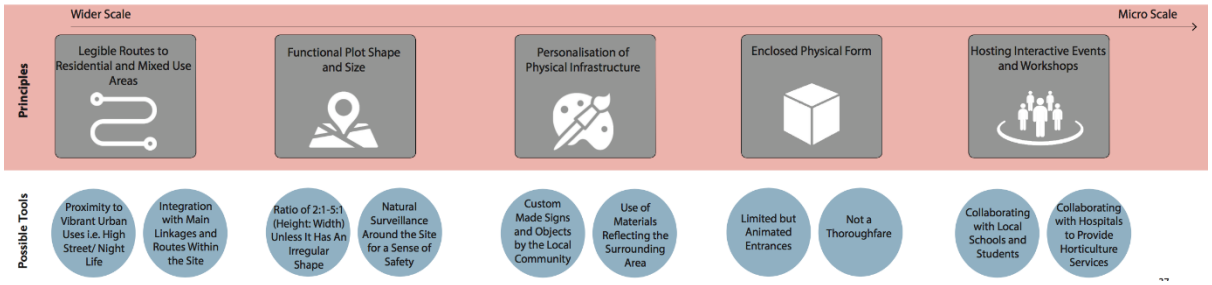


Figure 12

The tool kit is developed based on the findings from the literature and lessons learnt from the case studies and site visits. It is split into two sections: management and design considerations. Although they are presented as individual entities, they work together as they are equally essential to maintain the longevity and resilience of community gardens in London. The principles and tools should be taken as recommendations to interested stakeholders rather than offering the 'right' answer.

The design principles and tools are more concerned with the placement and function of the garden in relation to the wider urban fabric and network of land uses, rather than the design of the individual garden. This should be left for the involved community to allow an accurate representation of their own needs. Gibbons explains how the successful elements of one garden being replicated in another neighbourhood does not necessarily mean it will achieve the same success.

4. Site of Application

Chosen Site: Tottenham Hale, London

The selected study area for the application of the tool kit is Tottenham Hale in North London. The neighbourhood is in the Borough of Haringey and has been identified as a key strategic growth area within the Upper Valley Opportunity Area. This is due to its close proximity to the City and West End by public transport.

There is a deficiency in allotments, resulting in long waiting lists. There has also been failed initiatives for the proposal of a community garden, such one in Markfield Park.

The neighbourhood is recognised for its ethnically diverse community with a strong network of local community trusts. Moreover, it is identified as having one of the poorest access to green and public open spaces in the borough, making it a priority area for the council.

Figure 13: Location within London

4.1 Spatial Analysis of Chosen Neighbourhood

The spatial analysis of the neighbourhood below was produced and refined through multiple site visits.

Land Use

Figure 14

Street Hierarchy

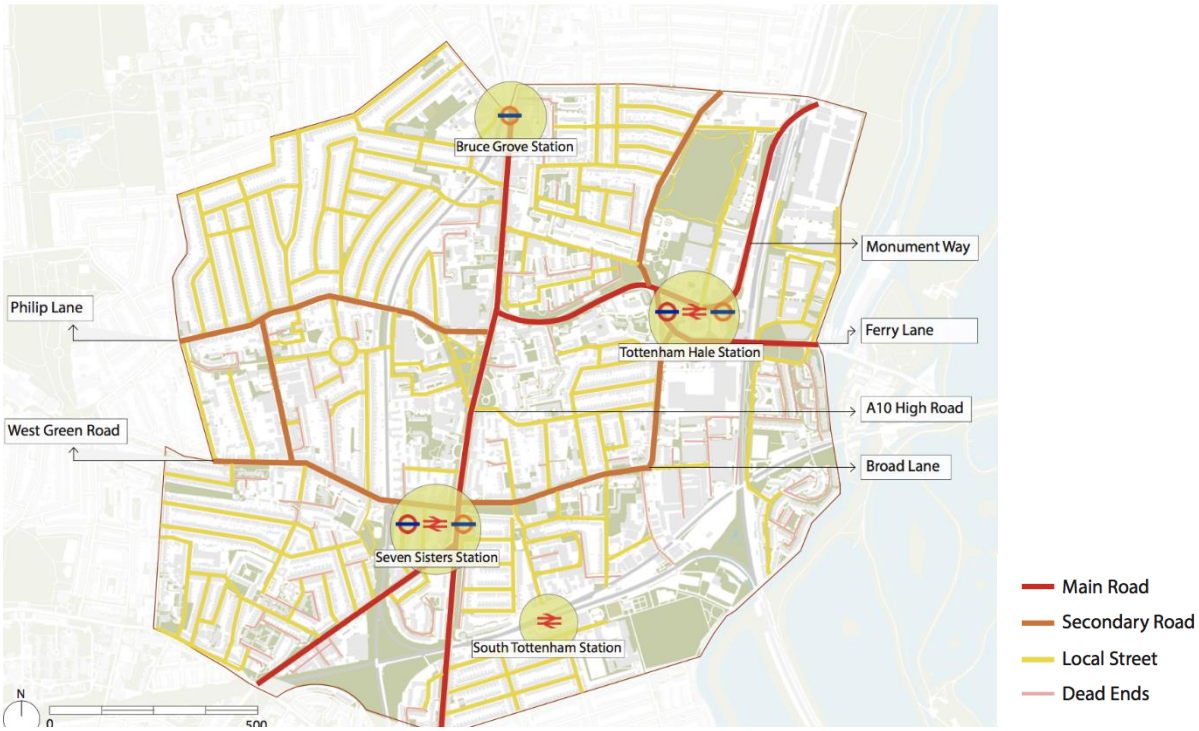


Figure 15

Crime Hotspots

Green Spaces

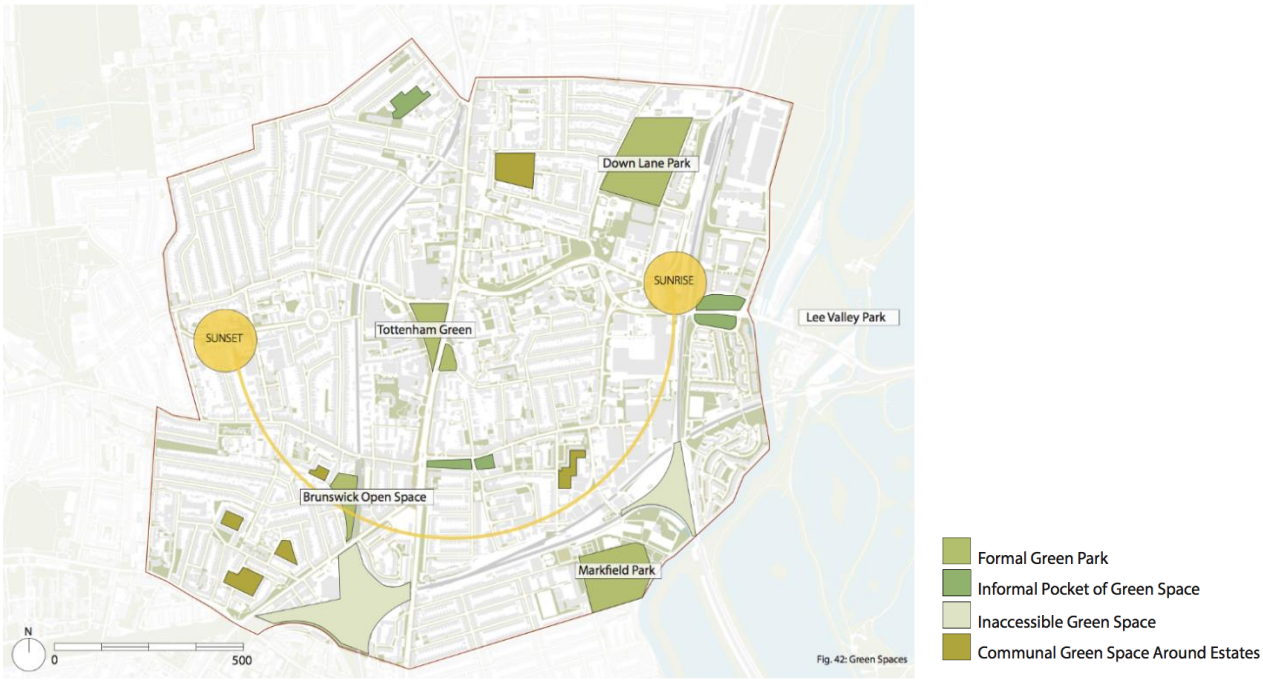


Figure 17

4.2 Site Wide Opportunities

Table 8

Opportunities	
Urban Form	1. Seven Sisters will be an improved gateway into Tottenham through planned regeneration projects. 2. The neighbourhood is adjacent to Lee Valley, which offers unique biodiversity and nature. 3. A green link is proposed for 2025, connecting Tottenham Green to Lee Valley.
Land Use	4. There are a number of schools around the neighbourhood, with the highest number of 0-19 year olds in the borough. 5. Tottenham Green offers numerous recreational, leisure and community

	facilities. Tottenham Hale Retail Park offers many retail and restaurants, offering an activity node. 6. The High Road and West Green Road provides north-south and east-west linkages across the site.
Transport	7. The neighbourhood is well connected to Central London, with two tube stations, two overground stations and the cycle superhighway.
Community	8. The neighbourhood, especially Seven Sisters, is known for its very long sense of community come from highly diverse backgrounds.

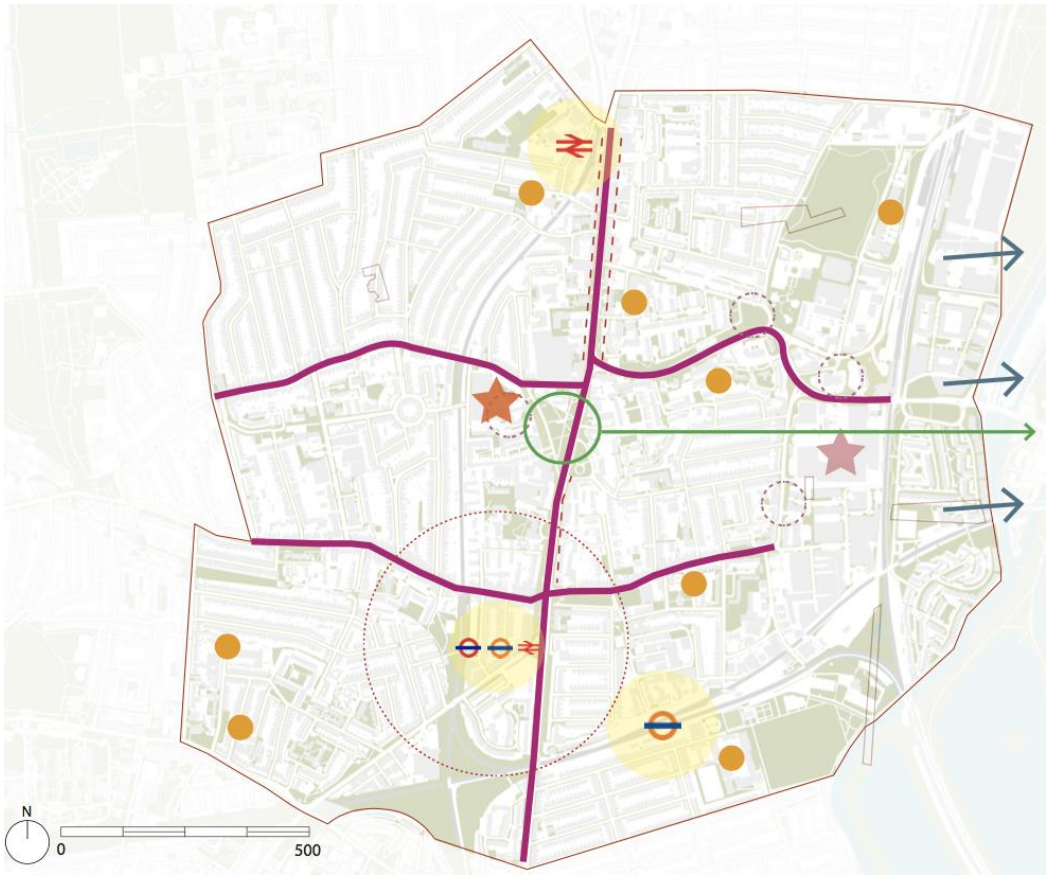


Figure 18

4.3 Site Wide Constraints

Table 9

Constraints	
Urban Form	1. The railway lines create a barrier for connectivity and although it offers lots of greenery, it is inaccessible due to its slant. 2. The green parks are not well connected with the rest of the urban fabric, therefore, are currently underused.
Land Use	3. The main roads lack night time economy uses, reducing vibrancy and natural surveillance at night.
Transport	4. Tottenham Hale is highly influenced by the gyratory system, which suffers from high volumes of traffic and a fragmented urban fabric. 5. There are many dead ends within the residential clusters, especially around Seven Sisters, impacting permeability.
Community	6. Seven Sisters Market is subject to demolition, threatening the number of third places in the neighbourhood. There is also a limited number of informal gathering spaces.

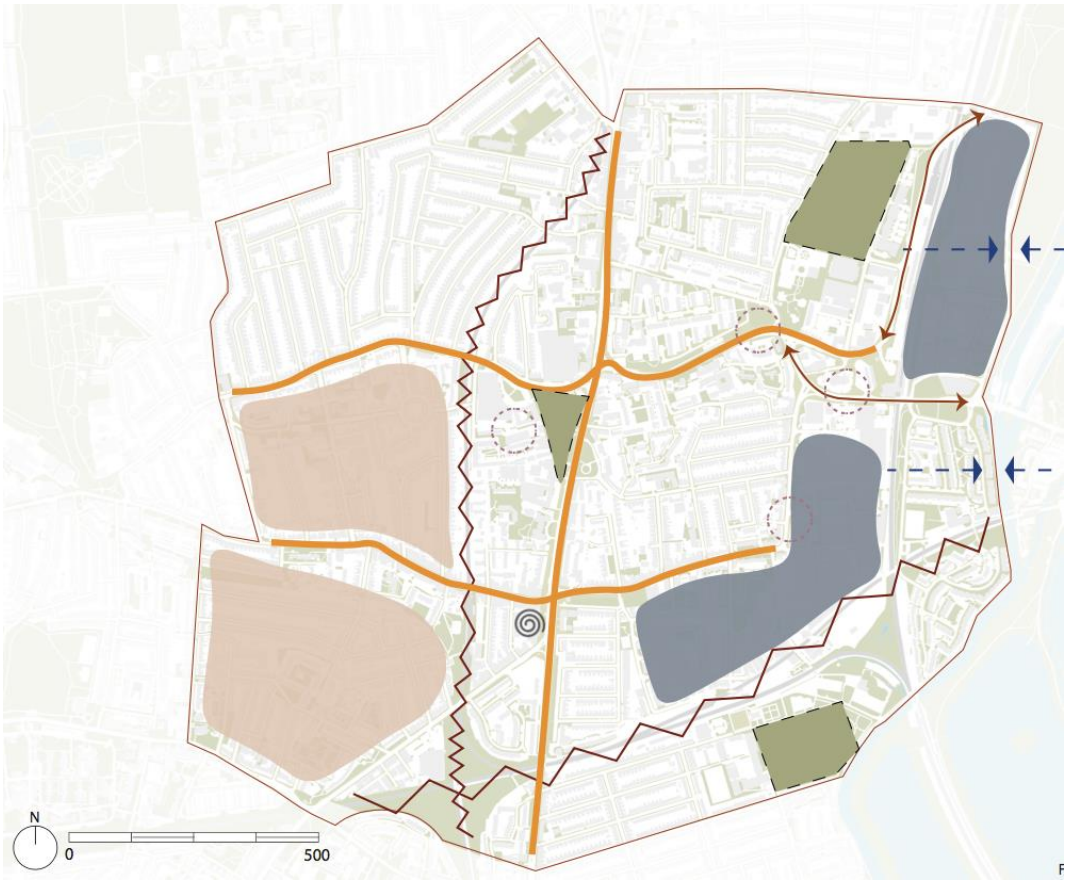


Figure 19

4.1.2 Identification of Potential Sites

Figure 20

Through strategically analysing the neighbourhood coupled with various site visits, a number of potential plots that could be transformed into community gardens have been identified. They have been selected through looking at the site holistically and researching into future plans for the study area based on the Tottenham Physical Development Framework developed by Arup. This is to allow the selected plot to be retrofitted against future plans for the area of Tottenham to maintain its longevity.

4.4 Identification of Potential Sites

Option 1: Behind Bernie Art Centre

Future Plans

• The cluster of uses by Tottenham Green, one of the opportunity areas of the regeneration plan, will become the cultural and educational quarter of the neighbourhood.

• This will implemented through greater integration of the existing uses and improvement of the streetscape through the provision of a programme of pop-up and permanent activities for the locals.

What Can Be Done?

• A community garden would offer a renewed focus on the existing assets and public realm to form part of the proposed green link that extends to and reflects the biodiversity of the Lee Valley.

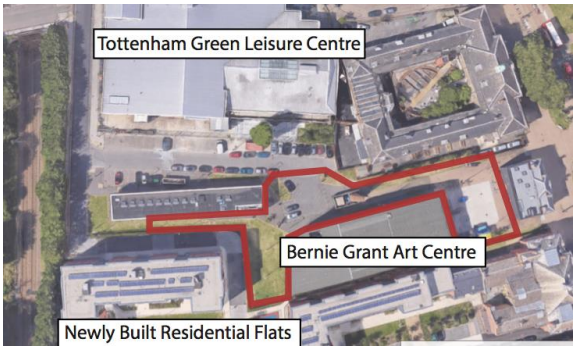


Figure 21

Figure 22: Aside from a few planted trees, street furniture is very limited making the public space not as inviting for pedestrians.

Figure 23: There are scattered undefined and narrow patches of grass behind BGAC.

Option 2: By Ferry Lane

Future Plans

• Following feedback by stakeholders, this will be implemented by making it safer for cyclists, a pedestrian crossing and improving the connections to nearby open spaces, such as Walthamstow Wetlands and the Lee Valley.

What Can Be Done?

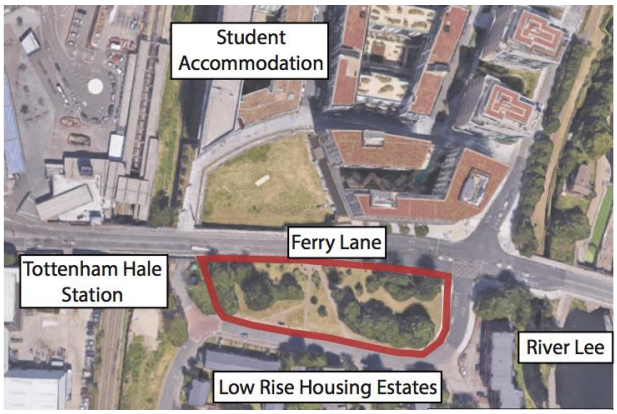


Figure 24

Figure 25: The plot is currently characterised by lots of shrubs and greenery that have not been maintained.

Figure 26: The site is bordered by Ferry Lane, which is a two way traffic heavy road, making it less comfortable for pedestrians.

• A community garden would improve conditions for pedestrians and cyclists, however, would require extensive tree cover to protect from vehicular pollution, resulting in limited sunlight entering the site.

Option 3: Corner of Fairbanks Road and Monument Way

Future Plans

• The deconstruction of the gyratory will lead to a safer and more enjoyable pedestrian and cycling experience along Monument Way. The east-west strategic green route from Tottenham Green to Hale will cross Monument Way, through infill developments, enhancing the frontages and improvements of existing open spaces to create an urban boulevard.

What Can Be Done?

• Similar to option 1, it would form part of a proposed green route, however, would require extensive tree coverage.

Figure 27

Figure 28: The density of greenery and vegetation is limited, therefore, the space still suffers from traffic and noise pollution.

Figure 29: In 2017, Haringey Council developed a public space on the corner of the two roads to act as a buffer zone against heavy vehicular traffic

5. Site of Application

Option 1 is selected as the proposed site as it was most consistent with the findings of the tool kit (pg. 14). The community garden will be retrofitted with the proposed green link that crosses from Tottenham Green to Lee Valley, which is aimed at providing further greening of the landscaping and an open space for residents and users to participate. Although it is well integrated with main routes around the neighbourhood, it is still sheltered away from heavy traffic, adding to the sense of privacy, safety and enclosure.

The surrounding land uses could further compliment the final outcome, due to close proximity to civil and community facilities and stakeholders. Through the development of a community garden that is parallel to the community's needs, it can enhance the visual identity of the public space around the Bernie Grant Art Centre (BGAC), increasing pedestrian footfall and animating the space.

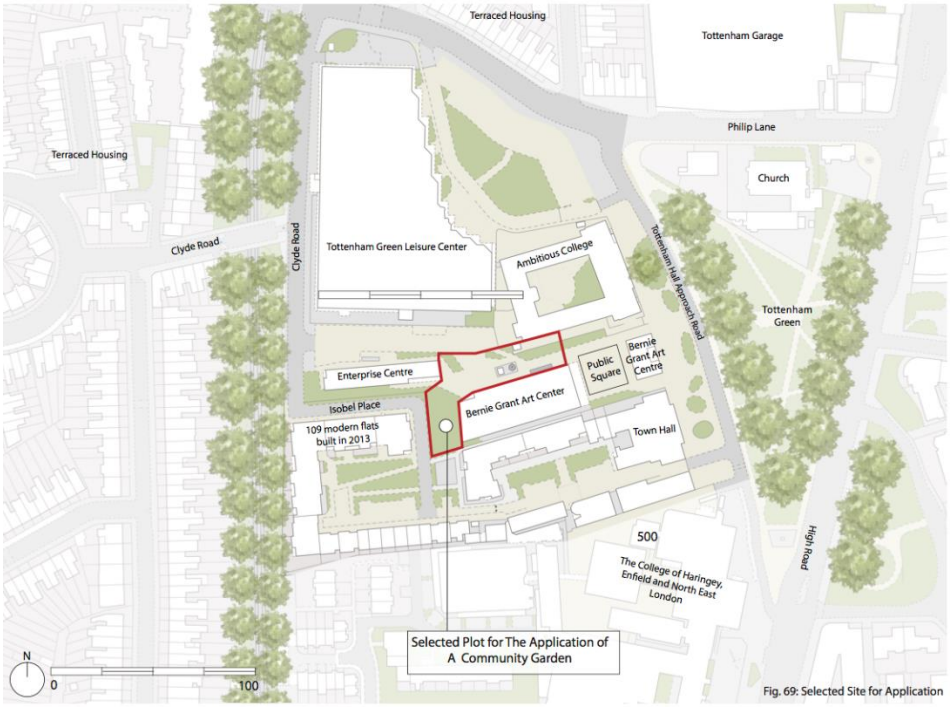


Figure 30

5.1 Overview of the Selected Site

- ***Entrances***

The entrances provide identification of the streets with higher pedestrian footfall.

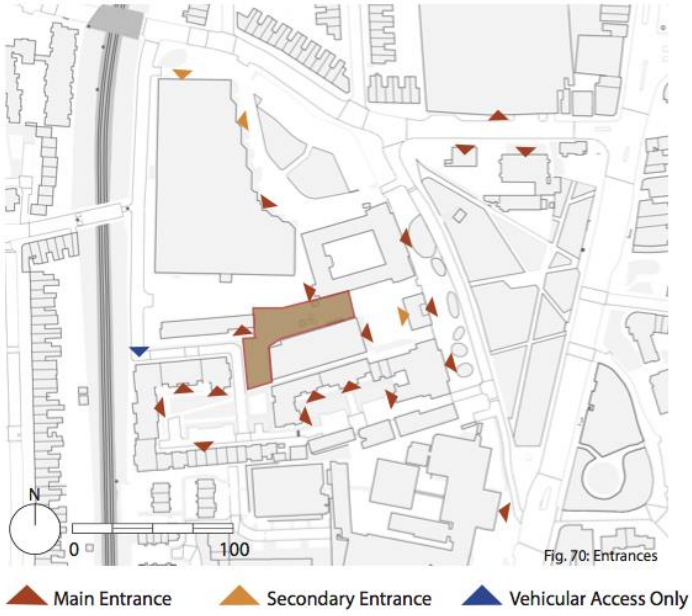


Figure 31

- ***Frontages***

Majority of the façades around the BGAC are characterised by blank walls, with minimal activity, reducing the quality of the townscape. Proposing a community garden would activate the public spaces, offering a stronger identity.

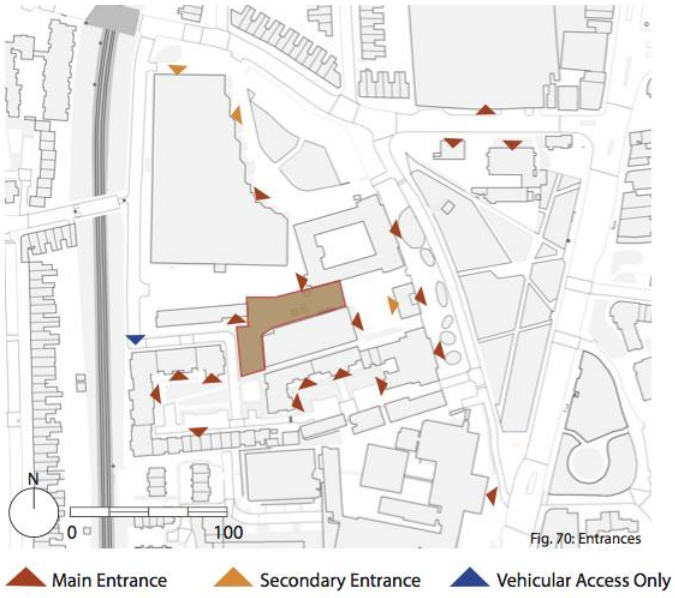


Figure 32

- ***Routes***

Fig. 33 considers the potential routes around the garden to the entrances of the other uses, ensuring that the garden causes minimal disruption to existing routes.

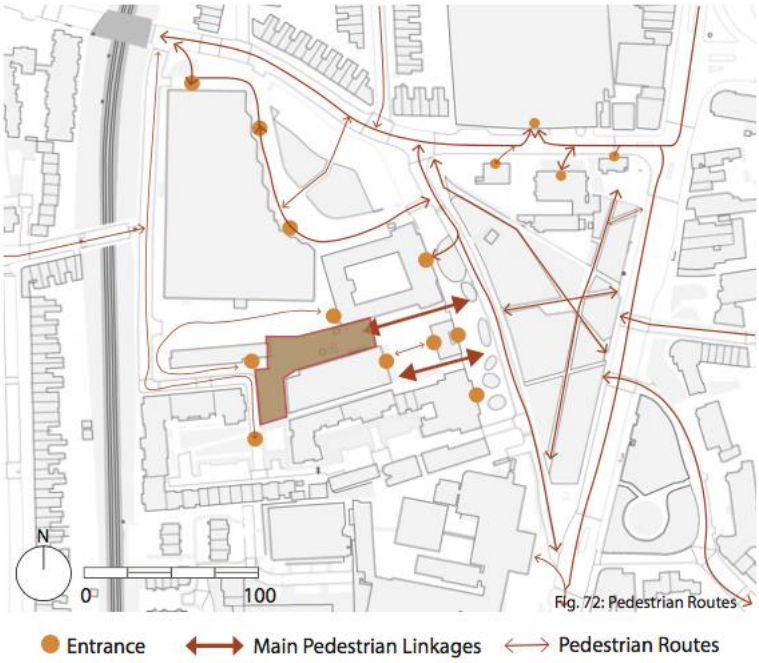


Figure 33

5.1.3 Design Proposal

Plan of the Community Garden

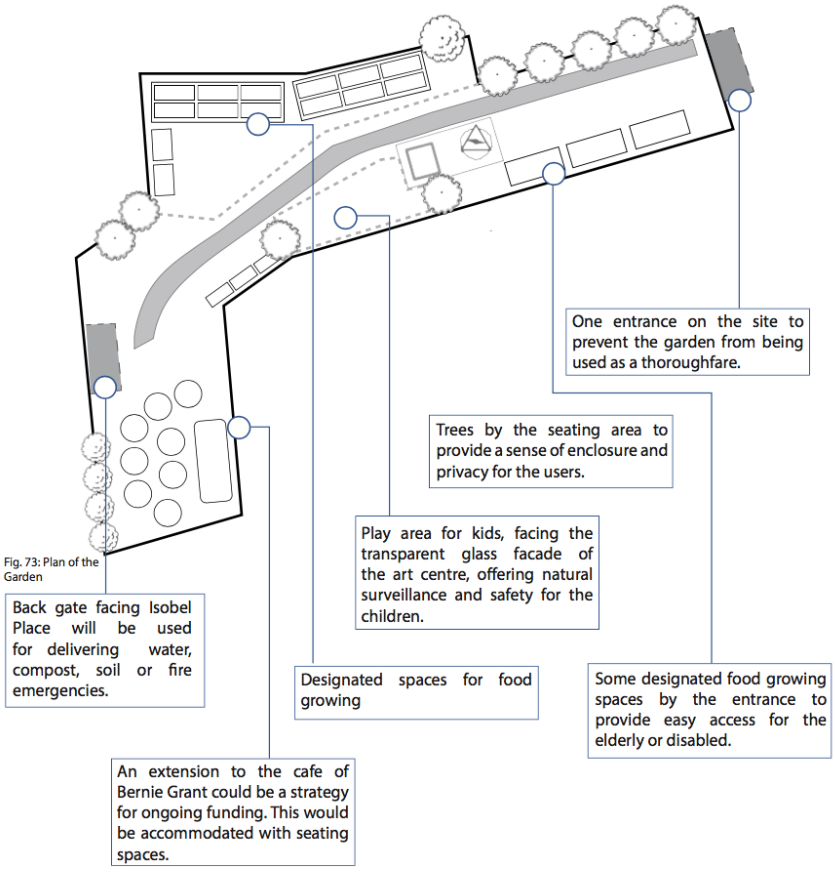
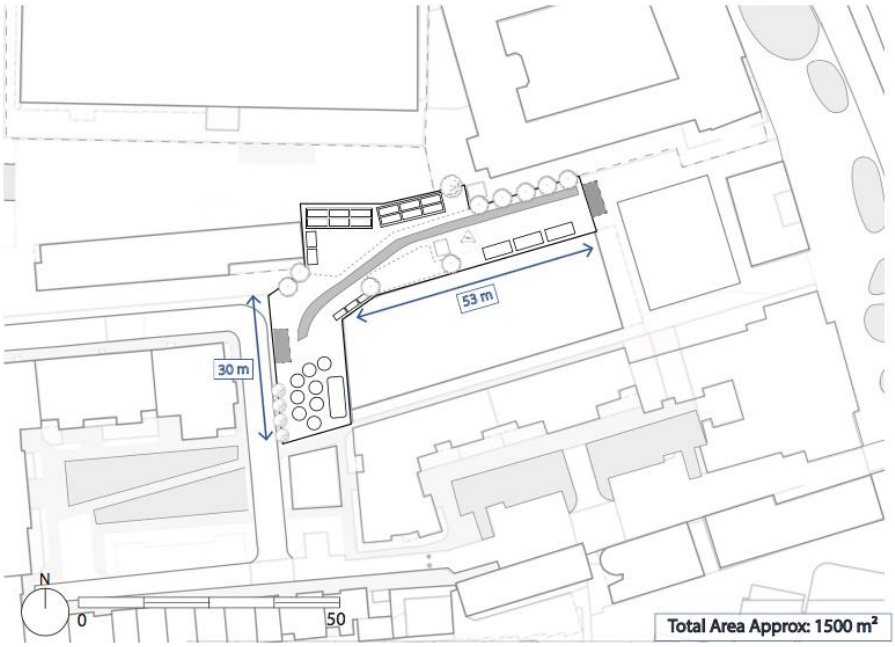
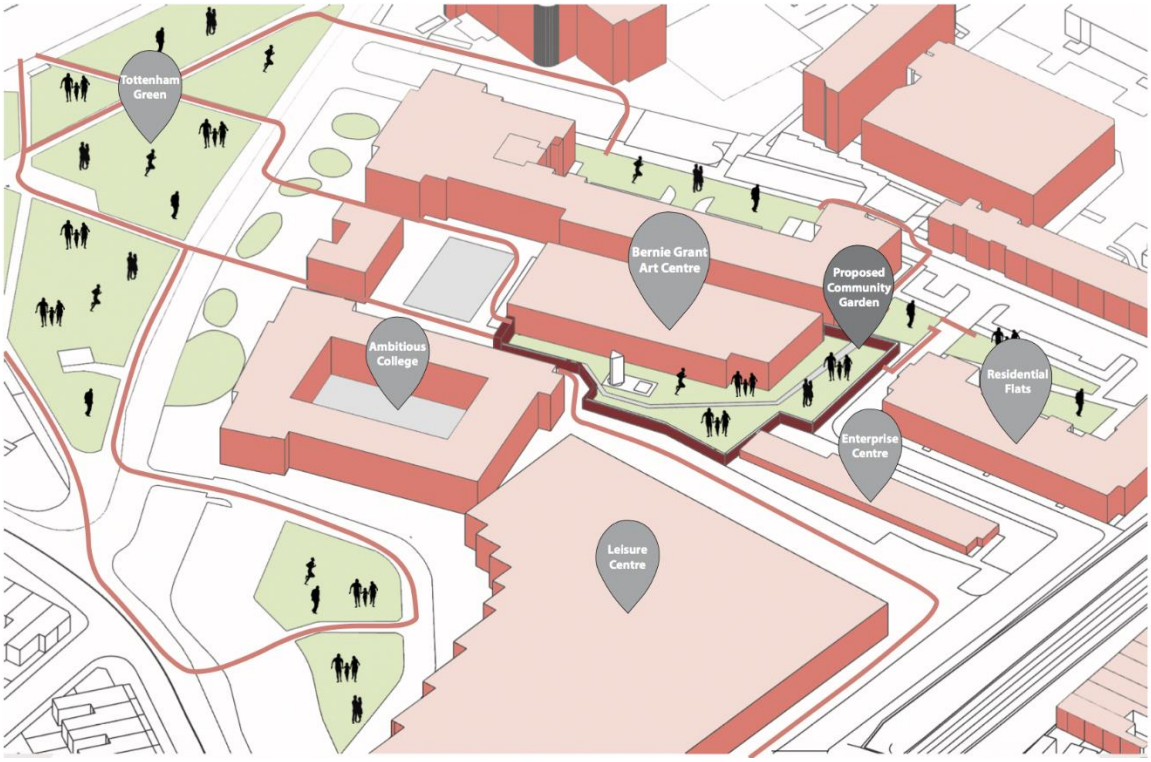


Fig. 73: Plan of the Garden

Retrofitting with the Wider Area and Application of the Tool Kit



Direct Route from Tottenham Green and the High Road. Located within a cluster of community facilities.	Irregular shape. The glass window of the centre is facing the play area, where parents can watch their children.	Work produced by the art centre can be showcased in the garden. A custom made sign will be placed by the entrance. Materials used for the physical design will mirror the surroundings.	Only one entrance into the garden to encourage an enclosed form, while avoiding it being used as a thoroughfare.	Loose space next to the cafe can be used for workshops and events (i.e. schools). Easy access food growing plots can encourage the disabled and elderly.



Axonometric Drawings and Renders of the Proposed Community Garden

The diagram illustrates how the community garden would interact with the surrounding uses and their entrances. The entrance of the garden will be constructed with dark materials to mirror the appearance and facade of the BGAC. Moreover, fig. 37 presents how natural surveillance can work in multiple ways. In this proposal, the glass facade of the BGAC is used to look through the garden, particularly the children's play area. However, this placement is only speculative, and intends to instigate a room for discussion for communities to consider creative ways to address the principles in the tool kit.

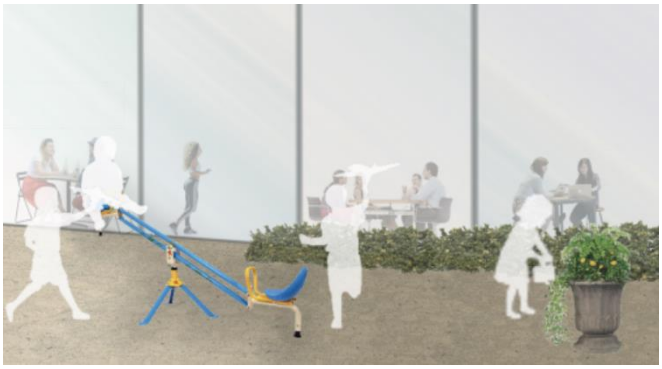


Figure 37: Inside of the Garden

Figure 38: Entrance of the Proposed Garden

5.2 Management Recommendations

Central to this proposal is not just the strategic placement of the garden, but also how the project is governed from the earliest stages. Figure 39 visualises the developed tool kit, in the context of Tottenham. It illustrates the timeline of events that should ideally take place, and how they interlink. However, this is not a rigid process and should instead be adapted to the stakeholders' response to maximise its success.

6. Conclusion

6.1 Reflections

Planners and Urban Designers perceive community gardens as a challenge, especially in maintaining its longer term sustainability and resilience. To tackle this research gap, this project holistically explores its contributions on the surroundings, challenges of its development, maintenance and ideal design principles to encourage social inclusivity.

When comparing the surroundings of the literature with the observations within real life examples in

London, certain discrepancies were identified, which pose a challenge on the extent to which community gardens can act as spaces of social inclusion. For example, the literature discusses how the land use can be utilised as a tool to improve the state of lower socio-economic catchment areas, however, the London examples mainly attract a white middle class population. The literature focuses on community gardens being a predominantly developed by communities, however, the case studies illustrate their heavy reliance on professionals' input.

With this knowledge, a tool kit addressing design and management recommendations has been developed. It proposes a practical approach which stakeholders can apply, based on the assumption that enough interest in a neighbourhood has been promoted for the development of a community garden. Its applicability aims at encouraging its integration with the surrounding urban fabric to engage communities in the long run. However, the extent to which it achieves social inclusivity within and beyond the garden spaces is challenging to determine, as it relies on the specific characteristics of the local context.

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